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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,305	12/11/2000	Alexis Campailla	154751.1/40062.83US01	3884

23552 7590 11/14/2005

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EXAMINER

MIRZA, ADNAN M

ART UNIT PAPER NUMBER

2145

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,305

Applicant(s)

CAMPAILLA, ALEXIS

Examiner

Adnan M. Mirza

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhatt et al (U.S. 6,405,191) and Gharachorloo et al (U.S. 6,738,868).

As per claims 1,7,13 Bhatt disclosed a method for filtering one or more messages for transmission or subscriber computing system according to an individual information request criteria, the method comprising: constructing a binary decision diagram implication graph for each individual information request criteria specified for each subscriber; identifying logical implications from one or more nodes in a binary decision diagram from a first information request criteria to one or more corresponding binary decision diagrams within a second information request criteria (col. 1, lines 53-64); receiving one or more messages to be filtered; evaluating a first information request criteria based upon information within the received messages; evaluating one or more information request criteria based upon information within the received messages using the identified logical implications between one or more binary decision

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diagrams within the information request criteria being evaluated and one or more binary decision diagrams previously evaluated (col. 4, lines 31-57);

However Bhatt did not disclose in detail transmitting the received message to the subscriber computing system corresponding to an information request criteria evaluated to be satisfied by information combined within the received message.

In the same field of endeavor Gharachorloo disclosed in detail this is the case when a transaction needs to send two or more messages to other nodes in the system. The scheduler is able to determine whether the current Even (or Odd) transaction should be scheduled to execute again during the next Even (or Odd) clock cycle by inspecting the state, counters and condition codes in the TSRF of the currently executing transaction to determine if they satisfy predefined criteria for continuing execution of the current transaction for an additional execution cycle (col. 13, lines 64-67 & col. 14, lines 1-5).

It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have incorporated when a transaction needs to send two or more messages to other nodes in the system. The scheduler is able to determine whether the current Even (or Odd) transaction should be scheduled to execute again during the next Even (or Odd) clock cycle by inspecting the state, counters and condition codes in the TSRF of the currently executing transaction to determine if they satisfy predefined criteria for continuing execution of the current

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transaction for an additional execution cycle in the method of Bhatt to reduce latency of sending messages across the network by reducing congestion inside the network.

3. As per claims 2,8,14 Bhatt- Gharachorloo disclosed wherein the binary decision diagrams include an expression of an information request criteria in an if-then-else normal form (Bhatt, col. 5, lines 15-24).

4. As per claims 3,9,15 Bhatt- Gharachorloo disclosed wherein the constructing step further comprises recursively visiting the high and low successors for each node in the binary decision diagrams; while visiting each node, determine the precondition $\text{pre}(X')$ for each successor and compute the target $t(X')$ for all visited nodes and apply permissible implications; and iterate the processing for all implications (Bhatt, col. 14, lines 21-35).

5. As per claims 4,10,16 Bhatt- Gharachorloo disclosed wherein permissible implications for a node M with successor node N include: If node N is equal to the high successor $\text{high}(M)$, and If $p(M)$ implies $p(N)$, then remove N and set the $\text{high}(M)$ equal to $\text{high}(N)$; and if $p(M)$ implies $\neg P(N)$, then remove N and set $\text{high}(M)$ equal to $\text{low}(N)$ (Gharachorloo, col. 14, lines 33-46).

6. As per claims 5,11,17 Bhatt- Gharachorloo disclosed wherein permissible implications for a node M with successor node N include: If node N is equal to the low successor $\text{low}(M)$, and

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if $\neg p(M)$ implies $p(N)$, then remove N and set the $\text{low}(M)$ equal to $\text{high}(N)$; and if $\neg p(M)$ implies $\neg p(N)$, then remove N and set $\text{low}(M)$ equal to $\text{low}(N)$ (Gharachorloo, col. 25, lines 41-67).

7. As per claims 6,12,18 Bhatt- Gharachorloo disclosed wherein the evaluating steps further comprises determining if a current node is a leaf node in the binary decision program; if the current node is a leaf node, marking the information request criteria as being decided and returning the value of the current node; if the current node is not a leaf node (Bhatt, col. 14, lines 6-21), determining a value of the expression for the node $p(X)$; if the value of the expression of the node is true setting $X' = \text{high}(x)$ otherwise $X' = \text{low}(X)$; inserting X' into the rank; and visiting the targets of node X' to compare the current node with the target node; if the target node is lower then the current node according to a predicate order, update the current node (Bhatt, col. 6, lines 29-41).

Response to Arguments

Applicant's arguments filed 08/25/2005 have been fully considered but they are not persuasive.

Response to applicant's arguments is as follows.

8. Applicant argued that prior art did not disclose, "Construction of a binary decision diagram implication graph".

As to applicant's argument Bhatt et al disclosed, "The evaluation of the rules for determining whether an incoming message is to be sent to a subscriber is performed using a two-tier evaluation method. In another aspect of the invention, messages are implicitly published to the subscriber when the publisher is the relational database system itself" (col. 1, lines 60-64). One ordinary skill in the art at the time of the invention knows that array of rules map in the relation database format that is another form of saying the construction of a binary decision diagram implication graph.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Adnan Mirza whose telephone number is (571)-272-3885.


11. The examiner can normally be reached on Monday to Friday during normal business hours. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571)-272-3933. The fax for this group is (703)-746-7239. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866)-217-9197 (toll-free).



Adnan Mirza

Examiner



JASON CARDONE
SPE 2145